

NEMA

Model GRC0402D-TD
MFG PN: T324TS40U2B

Model GRC0402D-TD

Product Data Package



MODEL	HP	RPM	VOLTAGE	PHASE	Hz	FRAME	MOUNT	ENCLOSURE
GRC0402D-TD	40	3555	230/460	3	60	324TSD	Rigid/D-Flange	TEFC

Toronto

TOLL FREE 1.888.286.1820
PHONE 905.829.1001
EMAIL info@techtopcanada.com

Montreal

TOLL FREE 1.844.354.5111
PHONE 514.354.1002
EMAIL infoQC@techtopcanada.com

Moncton

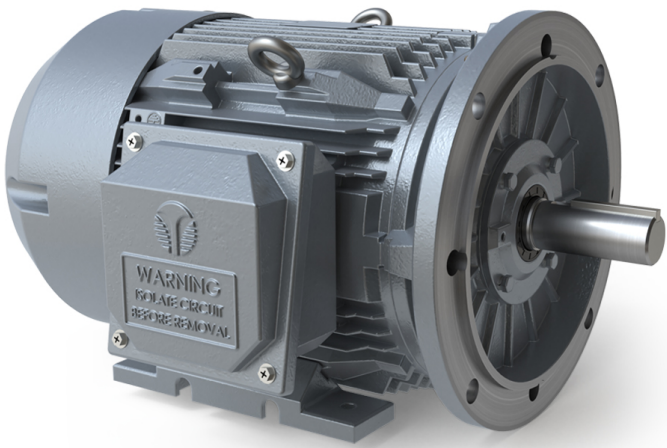
PHONE 506.386.5794
EMAIL infoNB@techtopcanada.com

Winnipeg

PHONE 204.633.2779
EMAIL infoMB@techtopcanada.com

Vancouver

PHONE 604.525.1551
EMAIL infoBC@techtopcanada.com



Index

Motor General Data Sheet	P 2
Nameplate Information	P 3
Technical Performance Data	P 4
Motor General Wiring Diagram	P 5
Motor General Outline Drawing	P 6

NEMA

Model GRC0402D-TD
MFG PN: T324TS40U2B

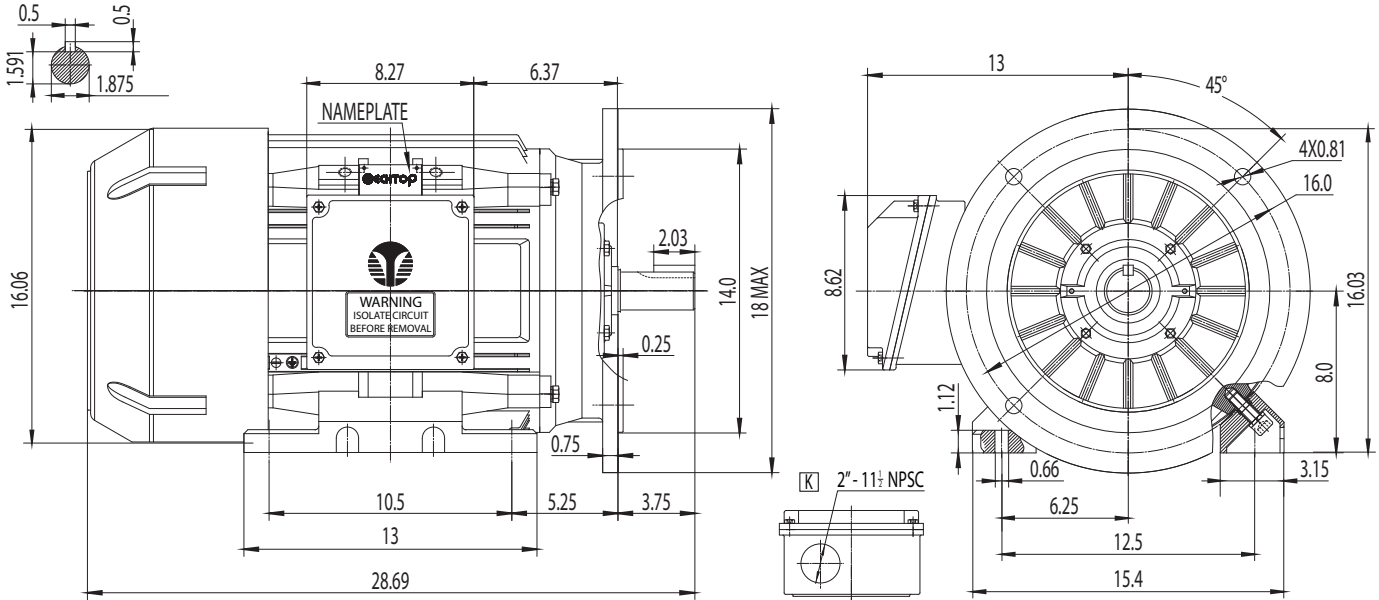
ELECTRICAL DATA		
Rated Motor Output Power	40	HP
	-	kW
Rated Motor Speed	3555	r/min 60Hz
	2945	r/min 50Hz
Rated Motor Voltage (+/-10%)	230/460	V/60Hz
	190/380	V/50Hz
Rated Motor Current	91/45.5	A (I _n) @ 60Hz
	110.6/55.3	A (I _n) @ 50Hz
Phase	3	Ø
Locked Rotor Current @ High Voltage	403	A (I _n) @ 60Hz
FI Current @ 208V	101	A (I _n) @ 60Hz
Service Factor	1.25	@ 60Hz
	1	@ 50Hz
KVA Code	H	60Hz
	H	50Hz
Nominal Efficiency	92.4	% @ 60Hz
Nominal Power Factor	0.89	cosΦ @ 60Hz
Leads (Qty, Size)	12	10
Connection	DD/D	-
Coil Resistance	0.167	Ω
Start Capacitor	-	µF/V
Run Capacitor	-	µF/V
VFD DUTY (S.F. 1.0)	RATIO	Hz
Variable Torque	30:1	2 - 60
Constant Torque	15:1	4 - 60
FULL LOAD TEMPERATURE RISE		
Full Load Temperature Rise	65.8	°C @ 60Hz
	66	°C @ 50Hz

GENERAL DATA		
Frame Size	324TSD	
Enclosure	TEFC	
Mounting	Rigid/D-Flange	
Approximate Weight (lbs.)	517 lbs.	
Casing Material / Fan Cover	Cast Iron	Cast Iron
Shaft Material	-	
NEMA Design	A	
Degree of Protection (IP)	55	
Insulation Class / Temp Rise (60Hz)	F	B
Tropicalization	YES	
Duty	Cont. / S1	
Conduit Box Location	F1	
Feet Removable / Double Drilled	YES	NO
Paintwork	7024	
	Graphite Gray	
MECHANICAL DATA		
Bearing DE Side	6312 C3	
Bearing ODE Side	6312 C3	
Grease Type	Mobil Polyrex EM	
Compensation Ring (wavy washer)	NDE	
Moment of Inertia (lb-ft²)	3.37	
Sound Pressure @ 3 FT dBA	81.2	
SITE CONDITIONS		
Ambient Temperature (°C)	40	
Meters Above Sea Level (MASL)	1000	
HAZARDOUS LOCATIONS		
CSA Certified	A, B, C & D	
Temperature Code	T3A	-

Questions? Call 1.888.286.1820

NEMA

Model GRC0402D-TD
MFG PN: T324TS40U2B



NAMEPLATE DATA	60Hz	50Hz
Horse Power	40	40
RPM	3555	2945
Voltage	230/460	190/380
Full Load Amps	91/45.5	110.6/55.3
Service Factor	1.25	1
KVA Code	H	H
Full Load Amps (208V)	101	-
Nominal Efficiency	92.4	92.1
Nominal Power Factor	0.89	-
Design	A	
Frame	324TSD	
Enclosure Type	TEFC	
IP Rating	55	
Duty	Cont. / S1	
Insulation Class	F	
Ambient Rating	40	
Drive End Bearing	6312 C3	
Opposite Drive End Bearing	6312 C3	
Weight (lbs)	517	

NAMEPLATE LAYOUT

TECHTOP		INDUSTRIAL THREE PHASE MOTOR	
		INVERTER DUTY 15:1 CT 30:1 VT - 1.0 SF	
MODEL		TECHTOPCANADA.COM	
NEMA Premium		MFG PN	
60Hz		50Hz	
HP		MFG DATE	
RPM		SER #	
VOLT		DESIGN	
FLA		FRAME	
SF		ENCL	
KVA CODE		IP	
NOM.EFF		DUTY	
USABLE AT 208V 60Hz		INS CL	
FLA		AMB	
BEARING SIZE		WEIGHT	
DE	ODE		
GREASE: MOBIL POLYREX EM			
MADE IN CHINA CLASS 1, DIV 2, GROUPS A, B, C AND D		IEEE 45 MARINE DUTY	

VFD DUTY (S.F. 1.0)	RATIO	Hz*
Variable Torque	30:1	2 - 60
Constant Torque	15:1	4 - 60

*For max speed please contact Techtop Canada

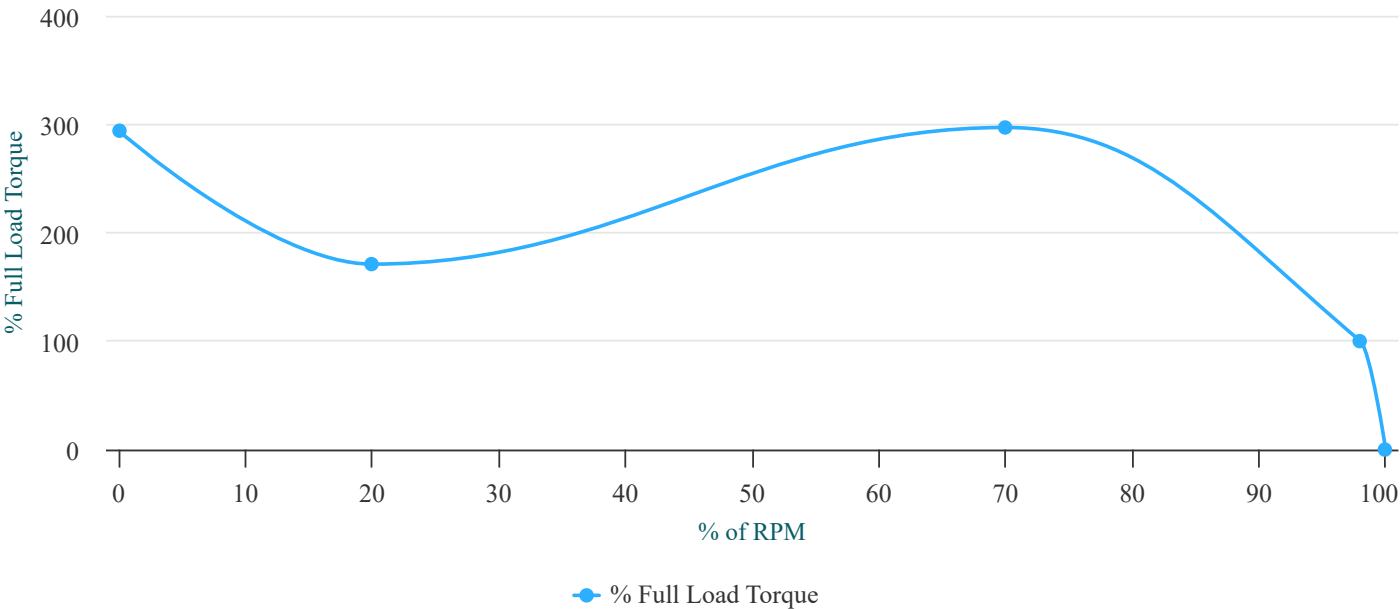
HAZARDOUS LOCATIONS	CSA CERTIFIED
Class / Division	Class I, Div. 2
Groups	A, B, C & D

Questions? Call 1.888.286.1820

NEMA

Model GRC0402D-TD
MFG PN: T324TS40U2B

Torque Speed (T-n) Curve



PERFORMANCE LOAD VALUES, HIGH VOLTAGE, 60Hz

TORQUE VALUES	TORQUE (lb-ft)	TORQUE (% FULL LOAD)	PERFORMANCE VALUES	
Locked Rotor Torque	173.7	294	Start Configuration	DOL
Pull-Up Torque	101.1	171	Starting Current (A)	403
Breakdown Torque	175.5	297	No-Load Current (A)	15.1
Full Load Torque	59.1	100	No-Load Power Factor	-

TYPICAL PERFORMANCE - NOT GUARANTEED VALUES

% OF RATED LOAD	25	50	75	100	125	S.F. 1.25
Line Amperes (A)	18.4	26.6	35.9	46.1	57.1	57.1
Efficiency (%)	88	92.3	93.3	93.2	92.8	92.8
Speed (r/min)	3592	3584	3575	3565	3554	3554
Power Factor (cosΦ)	0.58	0.77	0.84	0.88	0.89	0.89
Input Power (kW)	8.53	16.25	24.13	32.17	40.41	40.41

Questions? Call 1.888.286.1820



Model **GRC0402D-TD**
MFG PN: T324TS40U2B



HIGH VOLTAGE
(Δ)



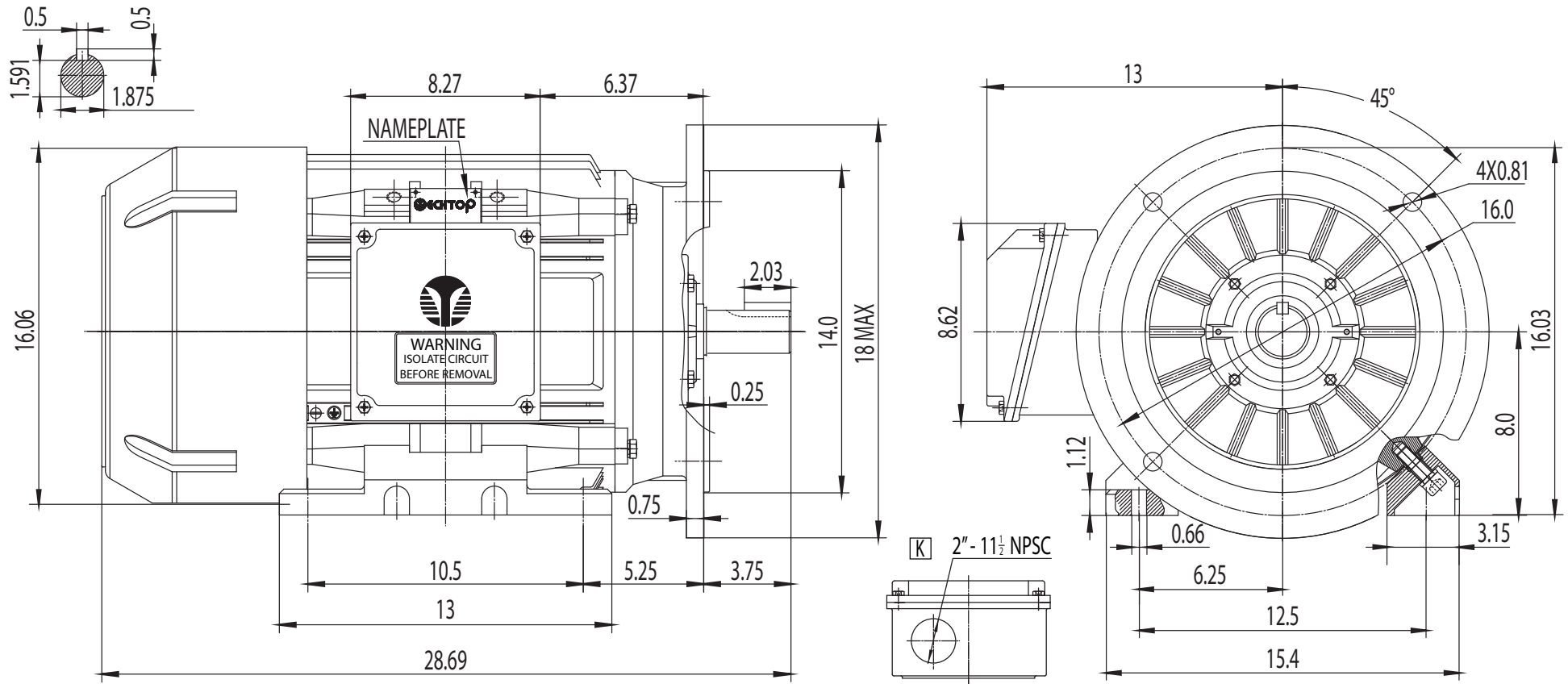
LOW VOLTAGE
(ΔΔ)

- NOTES:
- 1. CCW ROTATION FACING ODE FOR CONNECTIONS SHOWN
 - 2. TO REVERSE ROTATION, SWAP ANY TWO INPUT LINES
 - 3. WHEN MOTOR IS IN F1 POSITION, LEADS INDICATED WITH “*” EXIT THE CASING ABOVE THE CENTER LINE OF THE MOTOR, THE REMAINING LEADS EXIT BELOW THE CENTER LINE
 - 4. LEADS MUST BE NUMBERED AND COLORED AS SHOWN
 - 5. DIAGRAMS FOR REFERENCE ONLY



NEMA 3Ø DD/D 12-Lead Dual Voltage

DRAWING NUMBER:	NEMA-3-12-DD-D	ISSUED DATE	28/05/25
CONNECTION:	DD/D	PREMIUM T-FRAME CAST IRON MOTORS	
NUMBER OF LEADS:	12		
THERMAL PROTECTION:	-		



NEMA Premium TEFC 324TSD

DRAWING NUMBER:

GR3-CI-TF-324TSD-CFC

DIMENSIONS:

Inches

MOUNTING:

Rigid/D-Flange

CASING MATERIAL:

Cast Iron

ISSUED DATE

28/05/25

PREMIUM T-FRAME CAST IRON MOTORS